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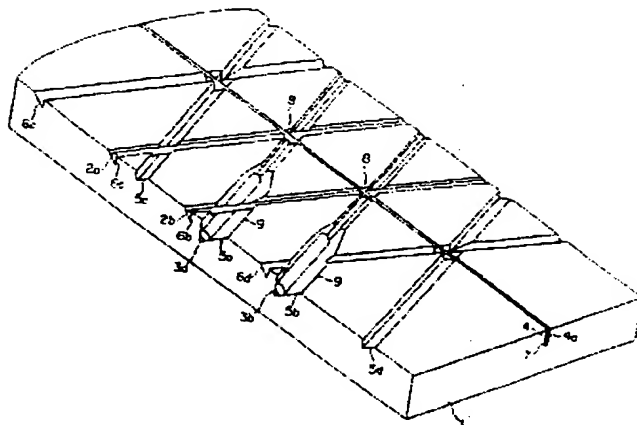
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TITLE : DEMULTIPLEXER/MULTIPLEXER AND ITS MANUFACTURE



ABSTRACT : PURPOSE: To easily realize high-density packaging, to eliminate the need for the optical axis alignment between optical fibers, and to facilitate manufacture by arranging an optical fiber for incidence so that it cuts and crosses an optical fiber for demultiplexing and multiplexing, and also arranging a dielectric multilayered film so that it cuts and crosses those optical fibers.

CONSTITUTION: First and second grooves 5a and 5b, and 6a and 6b which cross each other at a specific angle and a 3rd groove 7 which passes through the intersection part 8 of the 1st and 2nd grooves and extends orthogonally to the bisector of the 1st and 2nd grooves are formed on the top surface of a substrate. Then 1st optical fibers 3a and 3b are mounted and fixed in the 1st grooves 5a and 5b and 2nd optical fibers 2a and 2b cut and cross the 1st optical fibers 3a and 3b; and the dielectric multilayer film member 4 is inserted into the 3rd groove 7 and cuts and crosses the 1st and 2nd optical fibers 3a and 3b, and 2a and 2b and reflects light with specific wavelength selectively. Consequently, the optical fibers are connected mutually without being aligned, so the manufacture is facilitated.

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